



NUNATARYUK
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Update NUNATARYUK



This project is funded by
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NUNATARYUK - Permafrost thaw and the changing Arctic coast, science for socioeconomic adaptation

- EU, Horizon 2020
- 24 different partners – led by the Alfred Wegener Institute in Potsdam
- APRI institutions
 - Uni Vienna (Forschungsverbund Chemistry Meets Microbiology, Department of Social and Cultural Anthropology, b:geos)
- Duration: 5 years, started on November 1st 2017



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NUNATARYUK - Permafrost thaw and the changing Arctic coast, science for socioeconomic adaptation

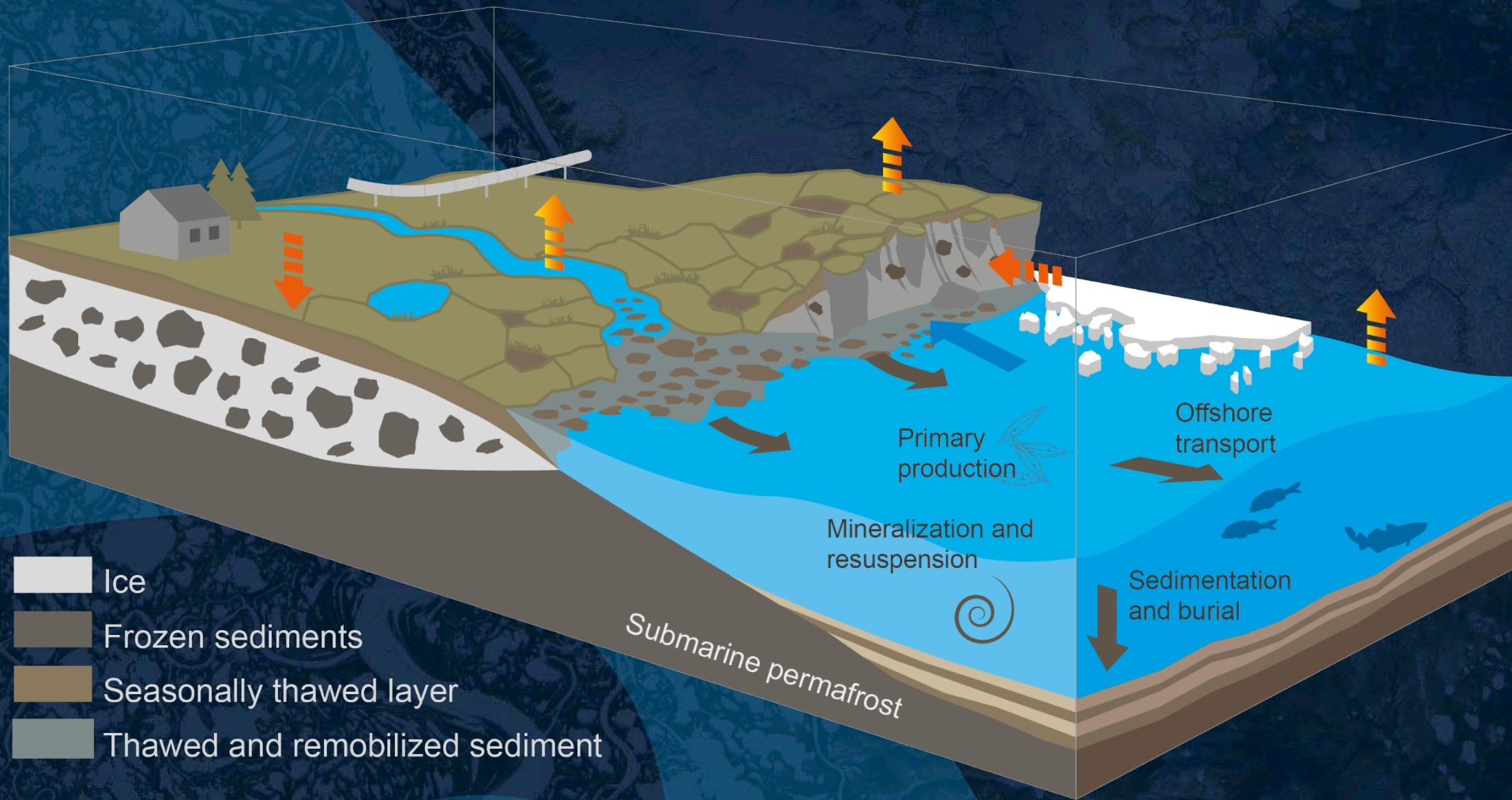


Aim:

“The main goal of Nunataryuk is to determine the impacts of thawing land, coast and subsea permafrost on the global climate and on humans in the Arctic and to develop targeted and co-designed adaptation and mitigation strategies.”



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- Ice
- Frozen sediments
- Seasonally thawed layer
- Thawed and remobilized sediment

Permafrost degradation due to climate warming

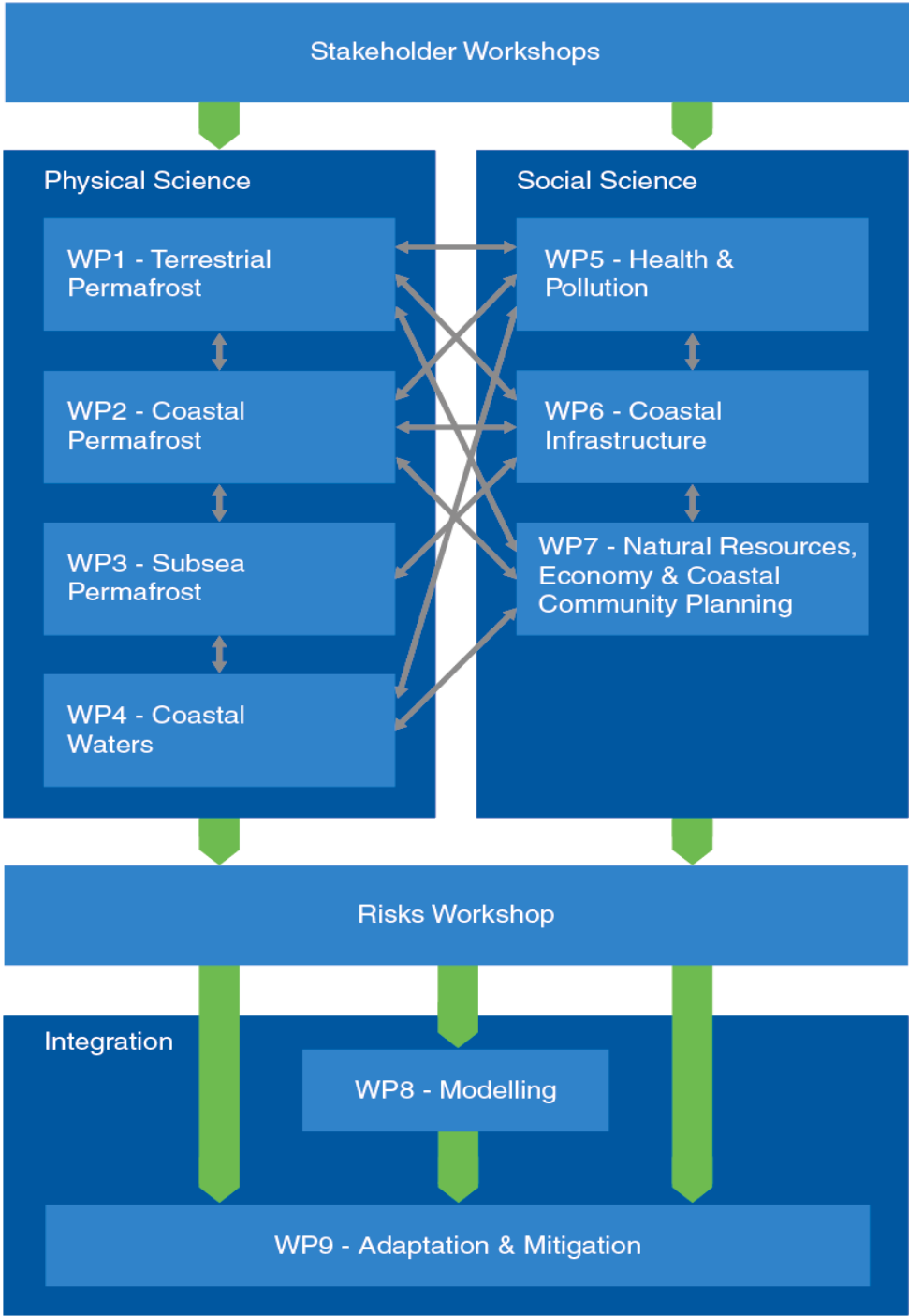
Vertical flux to atmosphere

Thermal erosion and undercutting by waves

Sediment, carbon and nutrient transport



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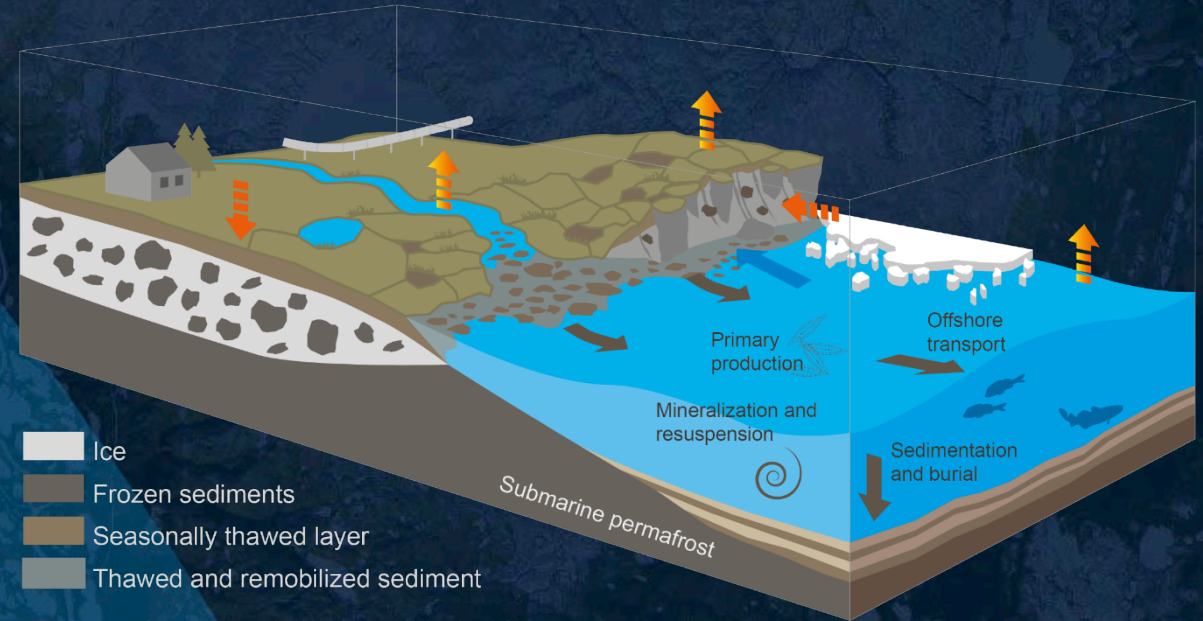
WP10 - Management



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B:geos

- Annett Bartsch
- Work Package 1: Terrestrial Permafrost
- Work Package 6: Coastal Infrastructure



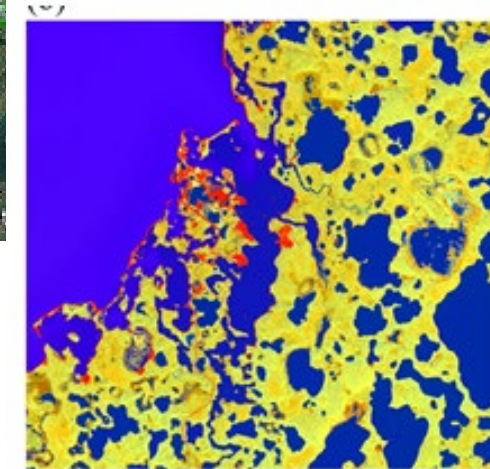
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WP1 – Terrestrial Permafrost

High to medium resolution satellite data analyses for monitoring of coastal catchments



WP2 – Infrastructure

Medium resolution satellite data to address infrastructure issues

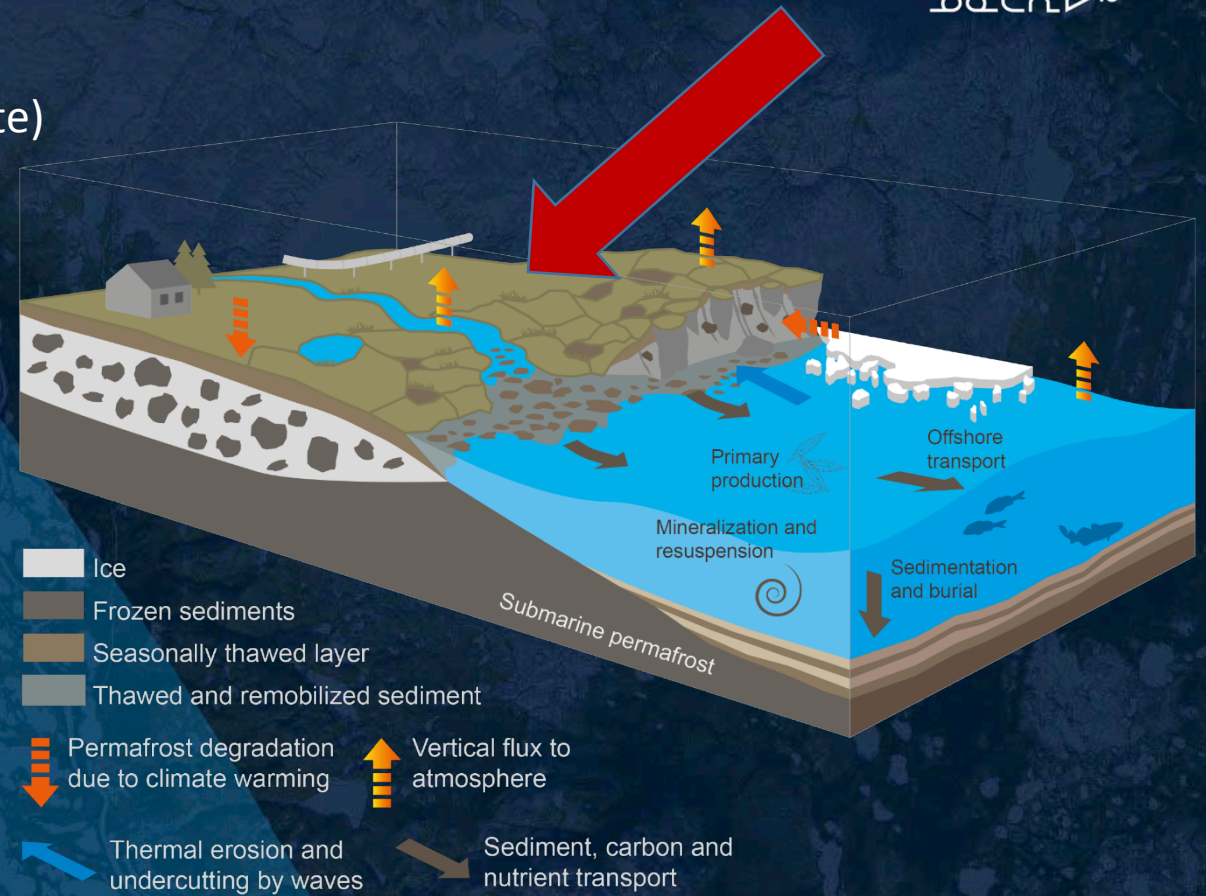
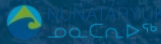


Uni Vienna – Department of Microbiology and Ecosystem Science (DMES)



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- Andreas Richter (PI in WP1), Victoria Martin (PhD candidate)
- Work Package 1: Terrestrial Permafrost



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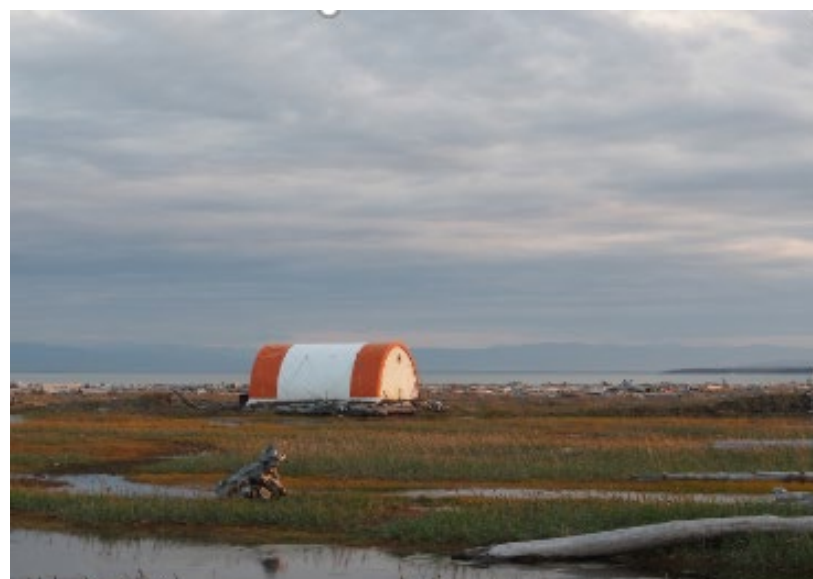
Uni Vienna – Department of Microbiology and Ecosystem Science (DMES)



- Fieldwork on Herschel Island and Ptarmigan Bay, Yukon Coast
 - Sampling of representative permafrost catchments
 - Sediment and water sampling
- Next steps:
 - Analysis of 50-70 samples (pit samples)
 - Further fieldwork in Canada 2019



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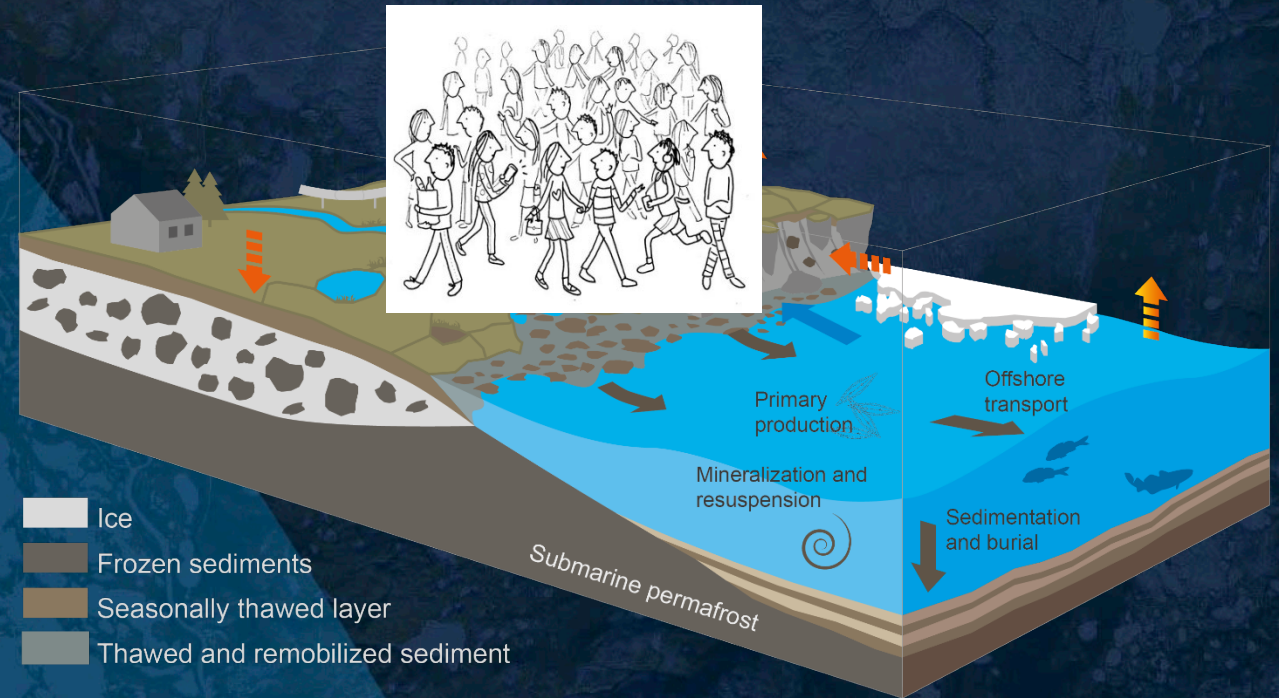
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Uni Vienna – Department of Social and Cultural Anthropology



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- Peter Schweitzer (co-lead of WP9), Susana Gartler (Post Doc), Alexandra Meyer (PhD candidate)
- Work Package 9: Adaptation and Mitigation



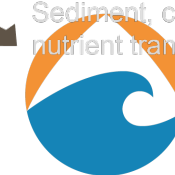
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Uni Vienna – Department of Social and Cultural Anthropology



- Information and consultation meetings in Longyearbyen (Peter, Alex)
- Indicators
- Next steps
 - Fieldwork in Longyearbyen, Svalbard (Alex)
 - Risk framework development
 - Community consultations in Inuvik and Aklavik (Susa) and Greenland (Peter)



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Thank you for your attention!



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Web: nunataryuk.org

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